



IFWO

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/713,182

DATE: 10/07/2004

TIME: 10:55:30

Input Set : A:\sequence.ST25.txt
 Output Set: N:\CRF4\10072004\J713182.raw

3 <110> APPLICANT: Otto, Eric
 4 Escovar-Kousen, Jose
 6 <120> TITLE OF INVENTION: Ethanol Production By Simultaneous Saccharification and
 7 Fermentation (SSF)
 9 <130> FILE REFERENCE: 10325.200-US

C--> 11 <140> CURRENT APPLICATION NUMBER: US/10/713,182

C--> 11 <141> CURRENT FILING DATE: 2003-11-14

11 <160> NUMBER OF SEQ ID NOS: 8

13 <170> SOFTWARE: PatentIn version 3.9

15 <210> SEQ ID NO: 1

16 <211> LENGTH: 25

17 <212> TYPE: PRT

18 <213> ORGANISM: Talaromyces emersonii

21 <220> FEATURE:

22 <221> NAME/KEY: misc_feature

23 <222> LOCATION: (13)..(13)

24 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid

26 <400> SEQUENCE: 1

W--> 28 Ala Asn Gly Ser Leu Asp Ser Phe Leu Ala Thr Glu Xaa Pro Ile Ala

29 1 5 10 15

32 Leu Gln Gly Val Leu Asn Asn Ile Gly

33 20 25

36 <210> SEQ ID NO: 2

37 <211> LENGTH: 20

38 <212> TYPE: PRT

39 <213> ORGANISM: Talaromyces emersonii

41 <400> SEQUENCE: 2

43 Val Gln Thr Ile Ser Asn Pro Ser Gly Asp Leu Ser Thr Gly Gly Leu

44 1 5 10 15

47 Gly Glu Pro Lys

48 20

51 <210> SEQ ID NO: 3

52 <211> LENGTH: 22

53 <212> TYPE: PRT

54 <213> ORGANISM: Talaromyces emersonii

57 <220> FEATURE:

58 <221> NAME/KEY: misc_feature

59 <222> LOCATION: (1)..(1)

60 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid

62 <220> FEATURE:

63 <221> NAME/KEY: misc_feature

64 <222> LOCATION: (12)..(12)

65 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid

ENTERED

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67 <400> SEQUENCE: 3
W--> 69 Xaa Asn Val Asn Glu Thr Ala Phe Thr Gly Pro Xaa Gly Arg Pro Gln
 70 1 5 10 15
 73 Arg Asp Gly Pro Ala Leu
 74 20
 77 <210> SEQ ID NO: 4
 78 <211> LENGTH: 35
 79 <212> TYPE: PRT
 80 <213> ORGANISM: Talaromyces emersonii
 82 <400> SEQUENCE: 4
 84 Asp Val Asn Ser Ile Leu Gly Ser Ile His Thr Phe Asp Pro Ala Gly
 85 1 5 10 15
 88 Gly Cys Asp Asp Ser Thr Phe Gln Pro Cys Ser Ala Arg Ala Leu Ala
 89 20 25 30
 92 Asn His Lys
 93 35
 96 <210> SEQ ID NO: 5
 97 <211> LENGTH: 16
 98 <212> TYPE: PRT
 99 <213> ORGANISM: Talaromyces emersonii
 102 <220> FEATURE:
 103 <221> NAME/KEY: misc_feature
 104 <222> LOCATION: (2)..(2)
 105 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
 107 <400> SEQUENCE: 5
W--> 109 Thr Xaa Ala Ala Ala Glu Gln Leu Tyr Asp Ala Ile Tyr Gln Trp Lys
 110 1 5 10 15
 113 <210> SEQ ID NO: 6
 114 <211> LENGTH: 35
 115 <212> TYPE: PRT
 116 <213> ORGANISM: Talaromyces emersonii
 118 <400> SEQUENCE: 6
 120 Ala Gln Thr Asp Gly Thr Ile Val Trp Glu Asp Asp Pro Asn Arg Ser
 121 1 5 10 15
 124 Tyr Thr Val Pro Ala Tyr Cys Gly Gln Thr Thr Ala Ile Leu Asp Asp
 125 20 25 30
 128 Ser Trp Gln
 129 35
 132 <210> SEQ ID NO: 7
 133 <211> LENGTH: 591
 134 <212> TYPE: PRT
 135 <213> ORGANISM: Talaromyces emersonii
 137 <400> SEQUENCE: 7
 139 Ala Thr Gly Ser Leu Asp Ser Phe Leu Ala Thr Glu Thr Pro Ile Ala
 140 1 5 10 15
 143 Leu Gln Gly Val Leu Asn Asn Ile Gly Pro Asn Gly Ala Asp Val Ala
 144 20 25 30
 147 Gly Ala Ser Ala Gly Ile Val Val Ala Ser Pro Ser Arg Ser Asp Pro
 148 35 40 45

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151 Asn Tyr Phe Tyr Ser Trp Thr Arg Asp Ala Ala Leu Thr Ala Lys Tyr
 152 50 55 60
 155 Leu Val Asp Ala Phe Asn Arg Gly Asn Lys Asp Leu Glu Gln Thr Ile
 156 65 70 75 80
 159 Gln Gln Tyr Ile Ser Ala Gln Ala Lys Val Gln Thr Ile Ser Asn Pro
 160 85 90 95
 163 Ser Gly Asp Leu Ser Thr Gly Gly Leu Gly Glu Pro Lys Phe Asn Val
 164 100 105 110
 167 Asn Glu Thr Ala Phe Thr Gly Pro Trp Gly Arg Pro Gln Arg Asp Gly
 168 115 120 125
 171 Pro Ala Leu Arg Ala Thr Ala Leu Ile Ala Tyr Ala Asn Tyr Leu Ile
 172 130 135 140
 175 Asp Asn Gly Glu Ala Ser Thr Ala Asp Glu Ile Ile Trp Pro Ile Val
 176 145 150 155 160
 179 Gln Asn Asp Leu Ser Tyr Ile Thr Gln Tyr Trp Asn Ser Ser Thr Phe
 180 165 170 175
 183 Asp Leu Trp Glu Glu Val Glu Gly Ser Ser Phe Phe Thr Thr Ala Val
 184 180 185 190
 187 Gln His Arg Ala Leu Val Glu Gly Asn Ala Leu Ala Thr Arg Leu Asn
 188 195 200 205
 191 His Thr Cys Ser Asn Cys Val Ser Gln Ala Pro Gln Val Leu Cys Phe
 192 210 215 220
 195 Leu Gln Ser Tyr Trp Thr Gly Ser Tyr Val Leu Ala Asn Phe Gly Gly
 196 225 230 235 240
 199 Ser Gly Arg Ser Gly Lys Asp Val Asn Ser Ile Leu Gly Ser Ile His
 200 245 250 255
 203 Thr Phe Asp Pro Ala Gly Gly Cys Asp Asp Ser Thr Phe Gln Pro Cys
 204 260 265 270
 207 Ser Ala Arg Ala Leu Ala Asn His Lys Val Val Thr Asp Ser Phe Arg
 208 275 280 285
 211 Ser Ile Tyr Ala Ile Asn Ser Gly Ile Ala Glu Gly Ser Ala Val Ala
 212 290 295 300
 215 Val Gly Arg Tyr Pro Glu Asp Val Tyr Gln Gly Gly Asn Pro Trp Tyr
 216 305 310 315 320
 219 Leu Ala Thr Ala Ala Ala Glu Gln Leu Tyr Asp Ala Ile Tyr Gln
 220 325 330 335
 223 Trp Lys Lys Ile Gly Ser Ile Ser Ile Thr Asp Val Ser Leu Pro Phe
 224 340 345 350
 227 Phe Gln Asp Ile Tyr Pro Ser Ala Ala Val Gly Thr Tyr Asn Ser Gly
 228 355 360 365
 231 Ser Thr Thr Phe Asn Asp Ile Ile Ser Ala Val Gln Thr Tyr Gly Asp
 232 370 375 380
 235 Gly Tyr Leu Ser Ile Val Glu Lys Tyr Thr Pro Ser Asp Gly Ser Leu
 236 385 390 395 400
 239 Thr Glu Gln Phe Ser Arg Thr Asp Gly Thr Pro Leu Ser Ala Ser Ala
 240 405 410 415
 243 Leu Thr Trp Ser Tyr Ala Ser Leu Leu Thr Ala Ser Ala Arg Arg Gln
 244 420 425 430
 247 Ser Val Val Pro Ala Ser Trp Gly Glu Ser Ser Ala Ser Ser Val Leu

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248	435	440	445
251	Ala Val Cys Ser Ala Thr Ser Ala Thr Gly Pro Tyr Ser Thr Ala Thr		
252	450	455	460
255	Asn Thr Val Trp Pro Ser Ser Gly Ser Gly Ser Ser Thr Thr Thr Ser		
256	465	470	475
259	Ser Ala Pro Cys Thr Thr Pro Thr Ser Val Ala Val Thr Phe Asp Glu		480
260	485	490	495
263	Ile Val Ser Thr Ser Tyr Gly Glu Thr Ile Tyr Leu Ala Gly Ser Ile		
264	500	505	510
267	Pro Glu Leu Gly Asn Trp Ser Thr Ala Ser Ala Ile Pro Leu Arg Ala		
268	515	520	525
271	Asp Ala Tyr Thr Asn Ser Asn Pro Leu Trp Tyr Val Thr Val Asn Leu		
272	530	535	540
275	Pro Pro Gly Thr Ser Phe Glu Tyr Lys Phe Phe Lys Asn Gln Thr Asp		
276	545	550	555
279	Gly Thr Ile Val Trp Glu Asp Asp Pro Asn Arg Ser Tyr Thr Val Pro		560
280	565	570	575
283	Ala Tyr Cys Gly Gln Thr Thr Ala Ile Leu Asp Asp Ser Trp Gln		
284	580	585	590
287	<210> SEQ ID NO: 8		
288	<211> LENGTH: 514		
289	<212> TYPE: PRT		
290	<213> ORGANISM: B. stearothermophilus		
292	<400> SEQUENCE: 8		
294	Ala Ala Pro Phe Asn Gly Thr Met Met Gln Tyr Phe Glu Trp Tyr Leu		
295	1	5	10
			15
298	Pro Asp Asp Gly Thr Leu Trp Thr Lys Val Ala Asn Glu Ala Asn Asn		
299	20	25	30
302	Leu Ser Ser Leu Gly Ile Thr Ala Leu Trp Leu Pro Pro Ala Tyr Lys		
303	35	40	45
306	Gly Thr Ser Arg Ser Asp Val Gly Tyr Gly Val Tyr Asp Leu Tyr Asp		
307	50	55	60
310	Leu Gly Glu Phe Asn Gln Lys Gly Ala Val Arg Thr Lys Tyr Gly Thr		
311	65	70	75
			80
314	Lys Ala Gln Tyr Leu Gln Ala Ile Gln Ala Ala His Ala Ala Gly Met		
315	85	90	95
318	Gln Val Tyr Ala Asp Val Val Phe Asp His Lys Gly Gly Ala Asp Gly		
319	100	105	110
322	Thr Glu Trp Val Asp Ala Val Glu Val Asn Pro Ser Asp Arg Asn Gln		
323	115	120	125
326	Glu Ile Ser Gly Thr Tyr Gln Ile Gln Ala Trp Thr Lys Phe Asp Phe		
327	130	135	140
330	Pro Gly Arg Gly Asn Thr Tyr Ser Ser Phe Lys Trp Arg Trp Tyr His		
331	145	150	155
			160
334	Phe Asp Gly Val Asp Trp Asp Glu Ser Arg Lys Leu Ser Arg Ile Tyr		
335	165	170	175
338	Lys Phe Arg Gly Ile Gly Lys Ala Trp Asp Trp Glu Val Asp Thr Glu		
339	180	185	190
342	Asn Gly Asn Tyr Asp Tyr Leu Met Tyr Ala Asp Leu Asp Met Asp His		

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343	195	200	205	
346	Pro Glu Val Val Thr Glu Leu Lys Ser Trp Gly Lys Trp Tyr Val Asn			
347	210	215	220	
350	Thr Thr Asn Ile Asp Gly Phe Arg Leu Asp Ala Val Lys His Ile Lys			
351	225	230	235	240
354	Phe Ser Phe Phe Pro Asp Trp Leu Ser Asp Val Arg Ser Gln Thr Gly			
355	245	250	255	
358	Lys Pro Leu Phe Thr Val Gly Glu Tyr Trp Ser Tyr Asp Ile Asn Lys			
359	260	265	270	
362	Leu His Asn Tyr Ile Met Lys Thr Asn Gly Thr Met Ser Leu Phe Asp			
363	275	280	285	
366	Ala Pro Leu His Asn Lys Phe Tyr Thr Ala Ser Lys Ser Gly Gly Thr			
367	290	295	300	
370	Phe Asp Met Arg Thr Leu Met Thr Asn Thr Leu Met Lys Asp Gln Pro			
371	305	310	315	320
374	Thr Leu Ala Val Thr Phe Val Asp Asn His Asp Thr Glu Pro Gly Gln			
375	325	330	335	
378	Ala Leu Gln Ser Trp Val Asp Pro Trp Phe Lys Pro Leu Ala Tyr Ala			
379	340	345	350	
382	Phe Ile Leu Thr Arg Gln Glu Gly Tyr Pro Cys Val Phe Tyr Gly Asp			
383	355	360	365	
386	Tyr Tyr Gly Ile Pro Gln Tyr Asn Ile Pro Ser Leu Lys Ser Lys Ile			
387	370	375	380	
390	Asp Pro Leu Leu Ile Ala Arg Arg Asp Tyr Ala Tyr Gly Thr Gln His			
391	385	390	395	400
394	Asp Tyr Leu Asp His Ser Asp Ile Ile Gly Trp Thr Arg Glu Gly Val			
395	405	410	415	
398	Thr Glu Lys Pro Gly Ser Gly Leu Ala Ala Leu Ile Thr Asp Gly Pro			
399	420	425	430	
402	Gly Gly Ser Lys Trp Met Tyr Val Gly Lys Gln His Ala Gly Lys Val			
403	435	440	445	
406	Phe Tyr Asp Leu Thr Gly Asn Arg Ser Asp Thr Val Thr Ile Asn Ser			
407	450	455	460	
410	Asp Gly Trp Gly Glu Phe Lys Val Asn Gly Gly Ser Val Ser Val Trp			
411	465	470	475	480
414	Val Pro Arg Lys Thr Thr Val Ser Thr Ile Ala Trp Ser Ile Thr Thr			
415	485	490	495	
418	Arg Pro Trp Thr Asp Glu Phe Val Arg Trp Thr Glu Pro Arg Leu Val			
419	500	505	510	
422	Ala Trp			

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/713,182

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Input Set : A:\sequence.ST25.txt
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; Xaa Pos. 13

Seq#:3; Xaa Pos. 1,12

Seq#:5; Xaa Pos. 2

VERIFICATION SUMMARY

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Input Set : A:\sequence.ST25.txt

Output Set: N:\CRF4\10072004\J713182.raw

L:11 M:270 C: Current Application Number differs, Replaced Current Application No
L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:28 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0
L:69 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
L:109 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0